

CAN YOU AFFORD TO TOPDRESS WHEAT DUE TO HIGH FERTILIZER PRICES

By J.C. Hobbs

OCES Area Agricultural Economics Specialist



In August, I addressed the issue of whether or not a wheat producer could afford to apply fertilizer given that fertilizer prices were quite high. Recently another issue has risen concerning whether or not to topdress wheat since fertilizer prices are still high. There are several key points to consider when making the decision to topdress which include moisture, existing fertility in the field, ability to get the material applied in a timely manner, and the expected price of wheat at harvest. This article only examines the cost of nitrogen in a fertilizer blend compared to the price of wheat. As of this writing, the Kansas City Board of Trade July 2008 hard red winter wheat contract has been trading above \$8.00 per bushel since December 19, 2007.

At this stage in the wheat decision process, most wheat production costs are fixed or in other words will not change. Whether or not to topdress then comes down to whether the costs of applying additional fertilizer will result in a yield increase that more than covers these costs. A simple method that can be used to answer this question is a partial budget analysis. Simply identify the added costs, reduced costs, added returns, and/or reduced returns associated with this decision. In this case, added costs would include the cost of fertilizer and its application which could include some interest charges if money is being borrowed to finance the purchase and added returns would be the additional yield times the wheat price; and with this analysis, no reduced costs or reduced returns are expected.

A rule of thumb supported by OSU research is that 2 pounds of nitrogen are needed to produce a bushel of

wheat. Therefore, to determine whether or not it is economical to apply topdress fertilizer, simply compare the cost for the 2 pounds of nitrogen needed to produce a bushel of wheat. If it costs 50¢ for 1 pound of nitrogen from a particular fertilizer type then it takes \$1.00 to yield a \$7.00 bushel of wheat or roughly a 600 percent return to the fertilizer investment. Should it cost \$0.75 for 1 pound of nitrogen from the fertilizer, then it will cost \$1.50 to get a bushel of wheat and at the same price per bushel the return is 367 percent to the investment. If wheat is only worth \$6.00 per bushel and nitrogen is costing \$0.75 per pound, then the return is 300 percent to the investment. In conclusion, wheat prices can fall to historical average levels and it will continue to be advantageous to apply a topdress fertilizer.

Wheat prices will remain volatile between now and harvest. I am projecting that wheat prices in central Oklahoma will be about \$7.00 per bushel in June. If an above average U.S. winter wheat crop occurs, wheat prices could go as low as \$6.00 per bushel. The outlook for wheat prices after harvest also continues to remain strong. Therefore the decision to topdress goes beyond just the cost of fertilizer and its application.

This newsletter is published monthly by the Beaver County OSU Extension Office, PO Box 339, Courthouse, Beaver, OK 73932 (580) 625-3464, and is one way of communicating educational information. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement is implied.

Rick Nelson
Extension Educator, Agriculture/4-H Youth Development



AG NEWS

Division of Agricultural Sciences & Natural Resources
Oklahoma State University

Beaver County Extension Office * Courthouse * Box 339 * Beaver OK 73932 * (580)625-3464

February 2008

Roger Gribble, N.W. Area Ext Agronomy Spec

11:30am—Lunch - Chili & Stew will be provided



February 6th, 2008 @ Noon
Midwest Crop Protection Bldg
Gate, OK



Producers from Harper and Beaver Counties are invited to attend the Winter Wheat Meeting at the Midwest Crop Protection Building in Gate, OK on **Wednesday, February 6th at 12:00 noon.**

Topics of discussion will include: N-Ramp strips for Spring Nitrogen calibration; Insect and Disease update and management; Yield potentials for late emerging wheat; and Management decisions for wheat. Speakers will be Roger Gribble, Area Extension Agronomist and J.C. Hobbs, Area Extension Ag Economist.

Lunch will be provided by the Extension Offices.



Wed, Feb 13th, 2008
10:00am - 1:00pm
Woodward Co Fairgrounds, Woodward, OK

SCHEDULE

- 10:00am—Alfalfa Management**
Roger Gribble, N.W. Area Ext Agronomy Spec
- 10:30am—Utilizing Prescribed Fire**
Justin L. Barr, Ext Educ, Ag/4-H Ellis Co
- 11:00am—Yucca Control**



Thursday, February 28, 2008
At the Beaver County Fairgrounds
Beaver, Oklahoma

This year **Kit Pharo** a Cheyenne Wells, Colorado seedstock producer will be offering his views of the beef cattle industry. "A producer who has a destination knows what it takes to maximize profits. He knows what size and type of cow is optimum for his environment. He knows what his optimum level is for birth weight, growth, milk, etc. All of his breeding decisions are made with his destination in mind." Kit's presentation will cover:

- 5:00 pm Optimum Production is more Profitable than Maximum Production**
- 6:00 pm Registration, Chili Feed**
Please call the Extension Office at (580) 625-3464 by Monday, February 25th
- 6:30 pm Matching Cow Size to the Environment Desirable End Product**
It is possible to produce ideal replacement heifers and ideal feeding steers with the same bull.



Beaver County Cooperative Extension Service
Oklahoma State University
111 W 2nd ST
PO Box 339
Beaver OK 73932



New Location

WINTER HARDINESS OF FRUIT PLANTS

The question is often asked: whether wind chills are harmful to plants. For warm-blooded animals, wind chills can have a profound effect on their ability to keep warm. However, plants do not respond to wind chill indexes as do warm-blooded animals because they do not need to maintain a temperature above that of their surroundings. For example, a wind chill of 40 degrees below zero at a temperature of zero degrees Fahrenheit will not cause any more cold injury to plant tissue than a wind chill index of 20 degrees below zero at zero degrees Fahrenheit.

However, though the cold temperatures may not damage plants, wind alone is desiccating and can dry plant tissues. Plant tissues require moisture to survive and a high wind velocity can cause moisture loss. This desiccation may be great enough to injure or even kill tissue, particularly the smaller size wood as in peach twigs, apple spurs or blackberry canes. There is no scientific evidence to show that an increasing wind chill index will directly increase plant damage due to cold injury.

AVOIDING SPINDLY TRANSPLANTS

Gardeners often find it difficult to grow their own vegetable or flower transplants and frequently end up with spindly, weak plants that do not do well when placed outside. The two most common causes of spindly plants are low light and high temperatures after plants have germinated.

Unfortunately, these are the conditions commonly found on one of the most popular places to start seed — a windowsill. A windowsill doesn't provide enough light, and temperatures are hard to control. In order to understand what is needed to grow transplants, the process must be broken down into three distinct phases.

Germination: Germination requires warm temperatures, and usually the seed does not require light (lettuce is an exception). Therefore, place seeded containers in a warm place even if there isn't much light.

For example, some people choose the top of a refrigerator. A heating pad is even better because most seeds germinate best at a constant temperature of between 70 and 75 degrees. This can vary by species with some requiring higher temperatures and others lower. Therefore a heating mat with a thermostat is helpful. Also remember that this temperature should be that of the media, not the air. Media temperature can be 5 to 10 degrees cooler than air temperature due to evaporation, which causes cooling. Covering containers with plastic can reduce evaporation (and temperature drop), and consequently, watering frequency. Check containers often and move germinated seed to a location with adequate light.

Growth: Light and temperature must be controlled during this stage to produce strong, stocky seedlings. Temperature should be lower than that used for germination, with 60 to 70 degrees preferred. Light must also be adequate for good growth. The easiest way for most people to provide what is needed is to use florescent lights. A standard two-bulb florescent fixture works well. It must be adjustable so bulbs can be positioned 2 to 4 inches above the top of the plants. Incandescent bulbs do not work well because they produce too much heat to be placed as close to the plants as needed. Also, the common florescent bulb produces the wavelengths of light needed. A grow light will not produce more or better growth.

Hardening Off: Plants grown indoors need some time to acclimate to outside conditions of wind and full sun. It usually takes about a week to harden off a plant. Reducing watering and temperature is key to toughen up transplants. If possible, move transplants outside for a portion of each day. Start by placing them in a shady, protected location and gradually move them into a more exposed, sunny location as the week progresses.

NOW MAY BE A GOOD TIME TO PRUNE CERTAIN TREES



If you have ever pruned trees in late winter to early spring, you may have noticed that some weep sap from fresh pruning wounds. Tree species vary in how easily and how much they "bleed." Those most susceptible to bleeding include maples (silver, sugar, amur, Norway and hedge), black walnut, pecan, birch, mulberry, Osage orange (hedge tree) and grape.

Though bleeding may look as if it would cause considerable damage to the tree, this is not the case. Even if

large amounts of sap are lost, there is no apparent long-term damage. However, many people find the appearance of bleeding objectionable. Pruning during the winter when temperatures remain below freezing minimizes sap flow. But avoid pruning when temperatures fall below 20 degrees to prevent damaging woody tissue. If you have "bleeders" that need to be pruned, you might want to prune now rather than later.

GRAPE EXTRACT CAN PRESERVE MEAT STUDY

By Tom Johnston on 11/30/2007 for Meatingplace.com

Grape-seed extract is an effective means of preserving meat quality in pre-cooked, frozen and refrigerated ready-to-eat meals, according to a new University of Illinois study published in the Journal of Food Science.

The study concluded that grape-seed extract is a viable natural alternative to synthetic ingredients such as butylhydroxyanisole (BHA) and butylhydroxytoluene (BHT), which have long been used by the food industry to preserve quality in pre-cooked meats.

Susan Brewer, professor of food science at the University of Illinois, said the extract, which is a byproduct of fermentation, might be an even more effective antioxidant.

The study compared the natural antioxidants oregano, rosemary and grape-seed extract to synthetic antioxidants, evaluating their effectiveness in cooked, reheated beef and pork at different concentrations, for different lengths of time and at different temperatures. The meat was then evaluated for oxidative markers and sensory attributes by a 10-member panel.

"The higher concentration of grape-seed extract yielded better results than we see with synthetics, which is certainly not what you'd expect," Brewer said in a press release. "Synthetics, after all, have been engineered to maximize effectiveness, but sometimes Mother Nature comes up with a better product."

The grape-seed extract was provided by Kikkoman, which also financed the study.



HANDLING TIPS FOR VALENTINE'S DAY ROSES

If you are fortunate enough to receive roses from a loved one this Valentine's Day, follow these guidelines

from the Society of American Florists to help extend the life of your flowers.

For floral arrangements:

1. Keep the vase filled or floral foam soaked with warm water. Add fresh, warm water daily. If the water turns cloudy, replace it immediately. If possible, recut stems by removing one to two inches with a sharp knife. Do this under water. This allows the stems to draw in water instead of air.
2. Keep flowers in a cool spot (65 to 72 degrees Fahrenheit), away from direct sunlight, heating or cooling vents, directly under ceiling fans, or on top of televisions or radiators. (Appliances such as televisions give off heat, causing flowers to dehydrate.)
3. If a rose starts to wilt, remove it from the arrangement, and recut the stem under water. Submerge the entire rose in warm water. The rose should revive in one to two hours.

For loose stems: If you can't get your flowers in a flower food solution right away, keep them in a cool place. Fill a clean, deep vase with water and add the flower food obtained from your florist. Be sure to follow the directions on the package. Remove leaves that will be below the waterline. Leaves in water will promote bacterial growth.



Recut stems under water with a sharp knife and place the flowers in the vase solution you've prepared.

PLANTS THAT DEER DON'T LIKE

With rising deer populations, damage to landscapes has increased because of browsing. However, deer have preferences and will avoid some plant species if more desirable food is available. Following is a short list of plants deer normally do not bother. Even so, remember that feeding habits can shift because of changes in food supply. Also, some deer may have different preferences than most of the group.

Rarely Damaged:

Trees: Blue Spruce and Russian Olive

Shrubs: Barberry, Boxwood, Redosier Dogwood, Yew, Russian Olive, Rose of Sharon, European Privet

Annuals, Perennials and Bulbs: Yarrow, Ageratum, Columbine, Snapdragon, Lily of the Valley, Purple